

Amendments to the Specification:

Please amend the paragraph beginning on page 24, line 23 as follows:

Figure 1 shows a sequence alignment of serine recombinase sequences. a) An alignment of the sequences of selected serine recombinases (with accession numbers). The secondary structure elements $\gamma\delta$ resolvase, for which the crystal structure is known, are shown. An arrow marks the junction between the N- and C-terminal fragments of gamma delta resolvase obtained by proteolysis. Conserved residues in or near the active site are highlighted (shaded grey); S10(Tn3/ $\gamma\delta$ numbering) is marked (o). The number of residues in a C-terminal extension to a sequence (not shown) is in brackets. The C-terminus is indicated by an asterisk. For the *Methanococcus jannaschii* ('M. jann.') and IS607 transposase sequences, the N- (blue) and C-terminal domains are aligned with the C- and N-terminal domains, respectively, of $\gamma\delta$ resolvase. b) A cartoon showing the domain structures of the recombinases in (a). Sequence identifiers are as follows: $\gamma\delta$ is SEQ ID NO: 1, Tn3 is SEQ ID NO: 2, Tn27 is SEQ ID NO: 3, β is SEQ ID NO: 4, Sin is SEQ ID NO: 5, ISXc5 is SEQ ID NO: 6, Gin is SEQ ID NO: 7, Hin is SEQ ID NO: 8, M.Jann is SEQ ID NO: 9, IS607 is SEQ ID NO: 10, ccrA1 is SEQ ID NO: 11, Tn4451 is SEQ ID NO: 12, TP901-1 is SEQ ID NO: 13, Φ C31 is SEQ ID NO: 14.

Please amend the paragraph beginning on page 25, line 9 as follows:

Figure 2a shows details of Z-box sites which have been tested by the present invention (SEQ ID NO: 15 and 16).

Please amend the paragraph beginning on page 25, line 12 as follows:

Figure 2b shows details of the flexible linkers which have been tested by the present invention (SEQ ID NO: 17, 18, 19, 20, 21, 22, 29, 30 and 31 from top to bottom).